



## 9.24 Borough of Morris Plains

This section presents the jurisdictional annex for the Borough of Morris Plains.

### 9.24.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Name: Chief Jason A. Kohn Address: MPPD-531 Speedwell Avenue, Morris Plains NJ 07950 Phone: (973) 538-2284 ext. 105 E-mail: jkohn@morrisplainsboro.org	Name: Sgt. Michael Koroski Address: MPPD-531 Speedwell Avenue, Morris Plains NJ 07950 Phone: (973) 538-2284 ext. 106 E-mail: mkoroski@morrisplainsboro.org

### 9.24.2 Municipal Profile

The Borough of Morris Plains is located in the central region of Morris County; it is border by Morris to the south, Parsippany-Troy Hills to the west and north, and Hanover to the east. Major waterways that flow through the Borough includes the North Branch Whippany River, Watnong Brook, Jaquis Brook, Malapardis Brook and smaller streams and tributaries. According to the U.S. Census, the 2010 population was 5,532, and the total land area is 2.594 square miles, 2.557 square miles of land and 0.037 square miles of water. The Borough does not have any unincorporated communities.

The Borough is also located in the New Jersey Highlands Region, one of the 88 municipalities protected by and subject to the provisions of the Highlands Water Protection and Planning Act. Nearly the entire Borough is located within the Highlands Planning Area (1,657 acres or 99.8%).

### Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in section 9.24.9 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.24-1. Growth and Development**

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
<b>Recent Development from 2010 to present</b>					
Coventry Park	Residential	70 Units	Littleton Road	None	Complete
Morris Plains Auto & Convenience	Commercial	2 Structures	1799 Route 10 East	None	Complete
Garden State Harley Davidson	Commercial	1 Structure	1775 Route 10 East	None	Complete
EJK Realty	Commercial	1 Structure	1767 Route 10 East	None	Complete
<b>Known or Anticipated Development in the Next Five (5) Years</b>					



Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
Honeywell	Commercial	2 Structures	115 Tabor Road / Rt 53	None	Site Prep
M&M Realty	Unknown	Unknown	182 Tabor Road / Rt 53	None	Site Prep
Roseland	Unknown	Unknown	250 Johnson Road	None	Proposed
Unknown	Unknown	Unknown	1200 American Road	None	Proposed
Arbor Terrace Assisted Living	1 Structure		360 Speedwell Avenue	NEHRP: D	Proposed
Madison Affordable Housing	Residential	80 units	260 Tabor Road / Rt 53	None	Site Prep

\* Only location-specific hazard zones or vulnerabilities identified.

### 9.24.3 Natural Hazard Event History Specific to the Municipality

Morris County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

**Table 9.24-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
March 8, 2008	Flash Flood	N/A	N/A	Several trees and wires down DPW called out for removal. Unknown DPW overtime
October 28, 2008	Heavy Rain, Snow, Strong Wind	N/A	N/A	Wire down – Verizon repair
February 12, 2009	High Wind	N/A	N/A	Minor power outage
March 12 – April 15, 2010	Severe Storms and Flooding	DR-1897	Yes	Trees down, wires down / DPW overtime unknown
November 17, 2010	Thunderstorms	N/A	N/A	Tree down, Power outage
December 26-27, 2010	Severe Winter Storm and Snowstorm	DR-1954	Yes	DPW / Police overtime approx. \$31,000.00
February 1, 2011	Winter Storm	N/A	N/A	DPW called out for snow / ice removal
March 7, 2011	Flood	N/A	N/A	Water Main Break –SE Morris County Municipal Utilities Authority



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 – September 5, 2011	Hurricane Irene	EM-3332 DR-4021	Yes Yes	DPW / Police overtime / debris removal / damage \$85,000.00
October 29, 2011	Severe Storm	DR-4048	Yes	DPW / Police overtime / debris removal \$86,897.00
October 26 – November 8, 2012	Hurricane Sandy	EM-3354 DR-4086	Yes Yes	DPW / Police overtime / debris removal / damage \$232,000.00
June 18, 2013	Flash Flood	N/A	N/A	Rt. 202 Underpass flooded – No loss

#### 9.24.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Borough of Morris Plains. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

#### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Borough of Morris Plains.

**Table 9.24-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Drought	Damage estimate not available	Frequent	27	Medium
Dam Failure	Damage estimate not available	Occasional	24	Medium
Earthquake	500-year MRP: \$1,308,234 2,500-year MRP: \$28,310,113	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	27	Medium
Flood	1% Annual Chance: \$6,111,643	Frequent	18	Medium
Geological Hazards	Exposed to Class A and Class B: \$0	Rare	6	Low
Severe Storm	100-Year MRP: \$1,416,558 500-year MRP: \$8,003,040 Annualized: \$90,271	Frequent	48	High
Winter Storm	1% GBS: \$23,535,044 5% GBS: \$117,675,222	Frequent	54	High
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$0	Rare	6	Low
Disease Outbreak	Damage estimate not available	Frequent	36	High
Hazardous Materials	Damage estimate not available	Frequent	36	High
Infestation	Damage estimate not available	Frequent	18	Medium

Notes:





- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.  
 High = Total hazard priority risk ranking score of 31 and above  
 Medium = Total hazard priority risk ranking of 20-30+  
 Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Borough of Morris Plains.

**Table 9.24-4. NFIP Summary**

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Borough of Morris Plains	29	13	\$107,492.77	0	0	8

Source: FEMA Region 2, 2014

(1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 9/30/2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 9/30/14.

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

### Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

**Table 9.24-5. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent <sup>(1)</sup>
No critical facilities are located in the FEMA 1% and 0.2% Flood Hazard Area.						

Source: HAZUS-MH 2.1

Note (1): HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

Note (2): In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

NA Not available

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.1



### Other Vulnerabilities Identified

According to the 2010 preliminary FEMA Flood Insurance Study (FIS), in the Borough of Morris Plains, flooding along Watnong Brook and Jaquis Brook is caused by heavy rain, usually associated with localized thunderstorms and hurricanes during the summer and fall months. Areas in the Borough along Watnong Brook near Mountain Way and Jaquis Pond near Hanover Avenue have all experienced flooding during severe rainstorms. The underpass at the junction of State Highway 202 and 53 is prone to flooding as well (FEMA FIS 2010).

### 9.24.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Borough of Morris Plains.

**Table 9.24-6. Planning and Regulatory Tools**

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Master Plan	Yes	Local	Planning Board	
Capital Improvements Plan	Yes	Local	Borough Council	
Floodplain Management / Basin Plan	Yes	Local	FPA	L.O. 11A
Stormwater Management Plan	Yes	Local	FPA	L.O. 18C
Open Space Plan	Yes	Local	Borough Council	
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	Yes	Local	FPA	
Economic Development Plan	Yes	Local	Borough Council	
Comprehensive Emergency Management Plan	Yes	Local	OEM	Emergency Operations Plan
Emergency Response Plan	Yes	Local	Construction	
Post-Disaster Recovery Plan	No			



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans: Continuity of Operations/Continuity of Government Plan	Yes	Local	OEM	
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local	Building Department	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Zoning	
Subdivision Ordinance	Yes	Local		
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	FPA	L.O. 11A
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	Yes	Local	Building Department	
Site Plan Review Requirements	Yes	Local	Construction Official	L.O. 2-46
Stormwater Management Ordinance	Yes	Local	Building Department	L.O. 18C
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Zoning	L.O. 18C
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	Yes	State	Division of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Borough Engineer	
Soil Disturbance, Soil Erosion				

### Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Borough of Morris Plains.

**Table 9.24-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	
Environmental Board/Commission	No	



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	Yes	Road Department
Mutual Aid Agreements	Yes	Police Department
<b>Technical/Staffing Capability</b>		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Professional Contractors
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Building Department
Planners or engineers with an understanding of natural hazards	Yes	Professional Contractors
NFIP Floodplain Administrator	Yes	Borough Engineer
Surveyor(s)	Yes	Professional Contractors
Personnel skilled or trained in GIS and/or Hazus-MH applications	No	
Scientist familiar with natural hazards	Yes	Professional Contractors
Emergency Manager	Yes	Chief of Police
Grant Writer(s)	Yes	Professional Contractors
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	No	

### Fiscal Capability

The table below summarizes financial resources available to the Borough of Morris Plains.

**Table 9.24-8. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	Yes
Other	

### Community Classifications

The table below summarizes classifications for community program available to the Borough of Morris Plains.



Table 9.24-9. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No		
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	No		
Storm Ready	No		
Firewise	No		
Disaster/Safety Programs in/for Schools	No		
Organizations with Mitigation Focus (advocacy group, non-government)	No		
Public Education Program/Outreach (through website, social media)	Yes		
Public-Private Partnerships	No		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

### Self-Assessment of Capability

The table below provides an approximate measure of Morris Plains' capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.



Table 9.24-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X - Limited Funding		
Community Political Capability		X	
Community Resiliency Capability		X	
Capability to Integrate Mitigation into Municipal Processes and Activities.		X	

### National Flood Insurance Program

#### NFIP Floodplain Administrator

Leon Hall – Borough Engineer

#### Flood Vulnerability Summary

A formal list of flood-damaged properties and property owner's interest in pursuing mitigation is not maintained by the Township. Damages during Hurricane Sandy included a culvert collapse on Sun Valley Way.

#### Resources

The NFIP FPA is the sole person assuming responsibilities of floodplain administration for the Borough. The NFIP administration services provided by the FPA included permit review, inspections and damage assessments. At this time, the Borough does not provide education or outreach to the community regarding flood hazard and risk and flood risk reduction. The FPA would consider attending continuing education and/or certification training on floodplain management, if it were offered in the County for all local FPAs.

#### Compliance History

The community is currently in good standing with the NFIP. It is unknown when the most recent compliance audit was.

#### Regulatory

Other than FEMA and State required regulations and ordinances, the Borough has other regulatory capabilities that support floodplain management and meet the NFIP requirements. The Borough is currently not a part of the Community Rating System program.

### Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a



better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

### Planning

Many of the Borough's goals in the 2008 Master Plan Reexamination are aimed at preserving and protecting the natural environment to the greatest extent possible. Specifically, these goals include continuing the on-going open space and recreation planning and acquisition efforts and providing and maintaining a system of community facilities and services. These facilities and services include waster and sanitary sewer services, fire, police and other public safety services and public works. The Borough will also adopt ordinances and techniques to protect sensitive wetlands, steep slopes, woodlands and floodprone areas in order to avoid adverse impacts on the local environment.

The 2003 Open Space Plan details past open space acquisition projects as well as describes potential actions to continue open space acquisition efforts. The Borough will look to acquire lands that are contiguous to existing public and open space lands, as well as lands that will provide linkages between elements of the open space system. One of the main goals is to protect and preserve the remaining environmentally sensitive lands and natural resources, which include stream corridors, floodplains, wetlands and hydric soils, steep slopes and forested areas. The Plan also explains the importance of protecting each of these environmental features.

### Regulatory and Enforcement

The Borough has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the NFIP Flood Damage Prevention Ordinance, a stormwater management ordinance and ordinances for soil disturbance and soil erosion.

### Operational and Administration

The Borough has implemented maintenance programs in order to reduce risk, and has administrative and police mutual aid agreements that allow surrounding communities to provide and receive additional support during an emergency event.

### Fiscal

The Borough has access to a Capital Improvement budget in order to pay for mitigation actions and projects.

### Education and Outreach

The residents of Morris Plains are able to register for the Everbridge Emergency Alert System on the Borough's website; residents can choose to receive emergency alerts by phone, text or email. The Borough is looking to develop an all-hazards public education and outreach program for hazard mitigation and preparedness to aid its residents during emergency events.

## 9.24.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

### Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as



such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.24-11. Past Mitigation Initiative Status

2010 Mitigation Action	Lead	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2015 HMP or Discontinue)	Describe Next Step 1. If including action in 2015 HMP, revise/reword to be more specific (as appropriate). 2. If discontinuing, explain why.
<b>Morris Plains 1:</b> Backup power (generator) for Community Center (shelter).	Department of Public Works	No Progress	Grant application	Include in 2015 HMP	Applied for grant
<b>Morris Plains 2:</b> Upgrades and improvements to if available existing storm-water management system including the installation of additional pumping capacity located at the NJ Transit underpass at Route 202.	NJ Transit	Complete	Completed in 2010	Discontinue	Project completed



### Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The municipality has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- After the impacts of Hurricane Sandy, the Borough installed a back-up generator at the Town Hall/Police Department/Fire Department at 531 Speedwell Avenue.

### Proposed Hazard Mitigation Initiatives for the Plan Update

The Borough of Morris Plains participated in a mitigation action workshop in January 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.24-12 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Morris Plains would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.24-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.24-12. Proposed Hazard Mitigation Initiatives**

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
MP-1 (Old Morris Plains 1)	Backup power (generator) for Community Center (shelter).	Existing	All-Hazard	G-3	DPW	High	High	FEMA; Grant Funding-Local Share	Short	High	SIP	ES
MP-2	Develop all-hazards public education and outreach program for hazard mitigation and preparedness.	New	All-Hazard	G-1	County and Municipal OEM	Low	Medium	Municipal Budget	Short	High	EAP	PI
MP-3	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	N/A	All-Hazard	G-2, G-3	County and Municipal OEM	Medium	Low	Municipal Budget	Short	Medium	EAP	ES
MP-4	Support participation in the NFIP Community Rating System (CRS) program by attending CRS workshop(s) if offered within the county. Join the CRS program if adequate resources to support long term participation can be dedicated.	N/A	Flood	G-1, G-3	NFIP FPA; Municipal OEM	Medium - High	Low	Municipal Budget	Short (year 1)	High	EAP	PI

Notes:

Not all acronyms and abbreviations defined below are included in the table.

\*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued 2015)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding



Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to life and property.



Table 9.24-13. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
MP-1 (Old Morris Plains 1)	Backup power (generator) for Community Center (shelter).	1	1	1	1	1	1	1	0	0	1	0	1	1	0	10	High
MP-2	Develop all-hazards public education and outreach program for hazard mitigation and preparedness.	1	0	1	1	1	1	1	1	1	1	1	1	1	1	13	High
MP-3	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	1	1	1	1	0	0	1	0	0	1	1	1	0	1	9	Medium
MP-4	Support participation in the NFIP Community Rating System (CRS) program by attending CRS workshop(s) if offered within the county. Join the CRS program if adequate resources to support long term participation can be dedicated.	0	0	1	1	0	0	1	0	0	1	0	1	0	1	6	Medium

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



#### **9.24.7 Future Needs To Better Understand Risk/Vulnerability**

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None at this time.

#### **9.24.8 Hazard Area Extent and Location**

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Hazard area extent and location maps have been generated for the Borough of Morris Plains that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Borough of Morris Plains has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

#### **9.24.9 Additional Comments**

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None at this time.



Figure 9.24-1. Borough of Morris Plains Hazard Area Extent and Location Map 1

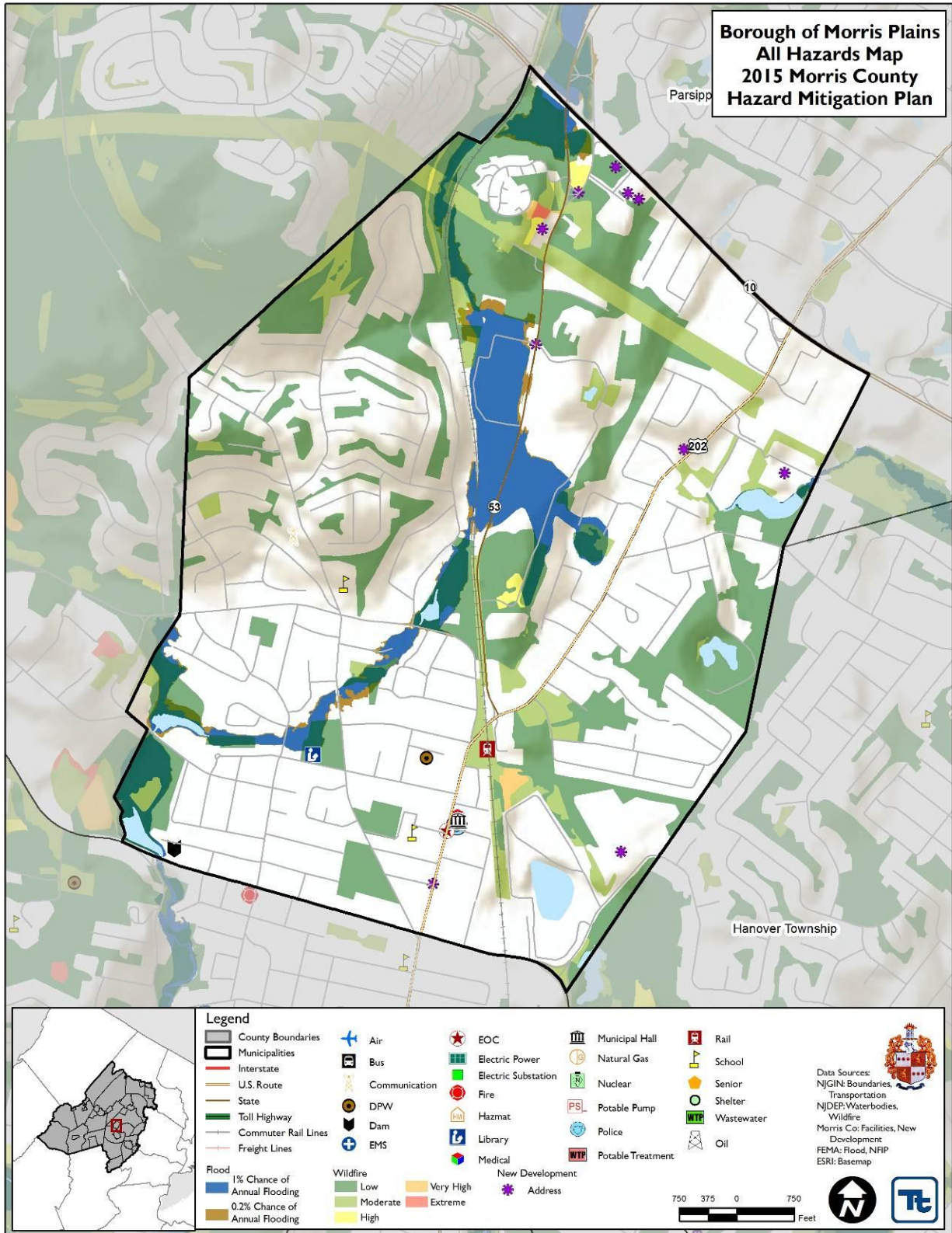
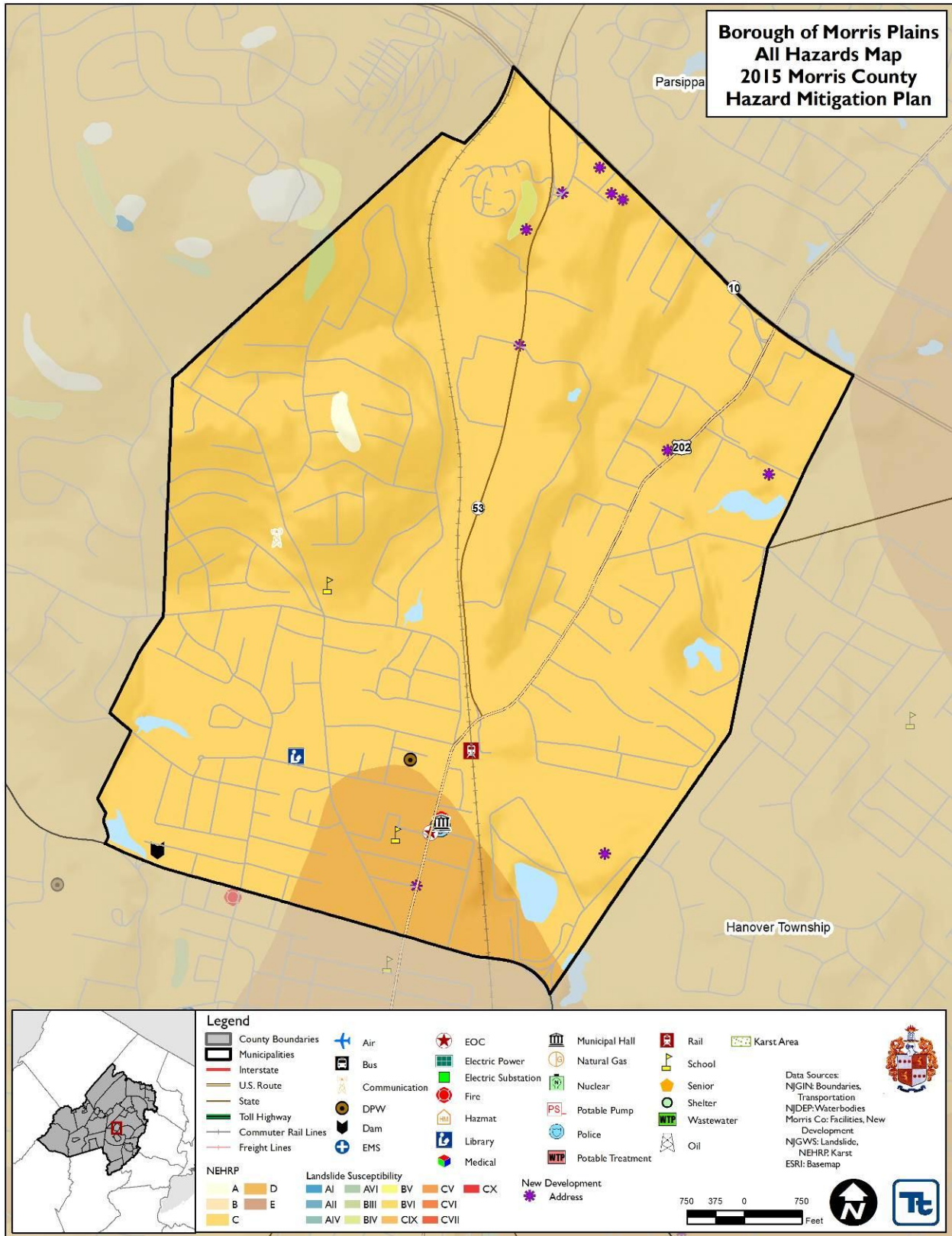




Figure 9.24-2. Borough of Morris Plains Hazard Area Extent and Location Map 2





**Action Number:** MP-1  
**Mitigation Action/Initiative:** Backup Generator for the Community Center (Shelter)

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Severe Storm, Severe Winter Storm, Earthquake
<b>Specific problem being mitigated:</b>	High winds and winter storms have the potential to cause widespread loss of electrical power to buildings throughout the Borough. The emergency shelter is a critical facility and remaining opening during emergency events is important for response and recovery.
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Acquire generator
	2. Solar Panels. Not selected-Too Costly
	3.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	The generator will allow the shelter remain functional to effectively aid residents that have been evacuated from their homes or have lost power.
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	G-3
<b>Applies to existing, future, or not applicable</b>	Existing structure
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High - \$135,000
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Department of Public Works
<b>Local Planning Mechanism</b>	Borough Engineer
<b>Potential Funding Sources</b>	FEMA, Municipal Budget, Grant Funding-Local share
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: July 9,2015 Progress on Action/Project: no progress. Grant still in application phase



**Action Number:** MP-1  
**Mitigation Action/Initiative:** Backup Generator for the Community Center (Shelter)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Uninterrupted power will ensure shelter/warming/cooling center capabilities
Property Protection	1	Uninterrupted power to building helps to protect internal equipment
Cost-Effectiveness	1	Alternative solar panels will be too costly
Technical	1	Technically feasible, long term solution
Political	1	Project has political and public support
Legal	1	State and Municipality have authority
Fiscal	1	Project funding through Hazard Mitigation Grant & Local Share
Environmental	0	No foreseen environmental impact
Social	0	No known social impact
Administrative	1	Have own personnel to maintain
Multi-Hazard	0	Will only reduce hazards due to loss of power
Timeline	1	Timeline for completion within 5 years
Local Champion	1	Strong support from Governing body
Other Community Objectives	0	None at this time
<b>Total</b>	10	
<b>Priority (High/Med/Low)</b>	High	



Action Number:

MP-2

Mitigation Action/Initiative:

Develop all-hazards public education and outreach program for hazard mitigation and preparedness

Assessing the Risk	
Hazard(s) addressed:	All-Hazards
Specific problem being mitigated:	Each hazard can cause different emergency situations for the Borough. These impacts could include physical damage to structures as well as loss of life if not properly prepared.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Develop residential Emergency Guide Book
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Borough is looking to provide opportunities for residents to learn about the impacts associated with each hazard. This will allow residents to become informed on these hazards and how to avoid potential losses.
Action/Project Category	EAP
Goals/Objectives Met	G-1
Applies to existing, future, or not applicable	Future
Benefits (losses avoided)	Low
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	Municipal OEM
Local Planning Mechanism	Emergency Management Coordinator/Chief of Police
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: February 12, 2015 Progress on Action/Project: Awaiting Budget Approval

**Action Number:**MP-2**Mitigation Action/Initiative:**Develop all-hazards public education and outreach program for hazard mitigation and preparedness

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Guide intended to educate citizens on life protecting measures
Property Protection	0	May assist reducing residential property loss
Cost-Effectiveness	1	Minimal cost required
Technical	1	Technically feasible, ongoing updates
Political	1	Public and political support
Legal	1	Municipality has authority
Fiscal	1	In 2015 municipal budget, awaiting approval
Environmental	1	No impact
Social	1	No impact
Administrative	1	Jurisdiction has administrative capability
Multi-Hazard	1	Will address multiple hazards
Timeline	1	Can be completed within 5 years
Local Champion	1	OEM / Chief of Police / Public Safety Committee
Other Community Objectives	1	Project supports Emergency Management Policies
<b>Total</b>	13	
<b>Priority (High/Med/Low)</b>	High	